MAY 2 8 2004

Substitute for form 1449/PTO

PTO/SB/08A (08-03)

Approved for use through 07/31/2006, OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE.

of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number, Under the Pape

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Co	mplete if Known
Application Number	10/766,348
Filing Date	January 28, 2004
First Named Inventor	Joshua Goodman
Art Unit	Unknown 2857
Examiner Name	Unknown Phuong Huynh
Altorney Docket Number	MS302098 1/MSETP537US

			U. S. PATEN	T DOCUMENTS	
Examiner Initials*	Cite No.1	Document Number  Number-Kind Code <sup>2 (f Mount)</sup>	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
PH		<sup>US-</sup> 6,697,769	02-24-2004	Goodman, et al.	
1		<sup>US-</sup> 6,609,094	08-19-2003	Basu, et al.	
		US- 6,606,620	08-12-2003	Sundaresan, et al.	
$\neg \nabla$		<sup>US-</sup> 6,553,358	04-22-2003	Horvitz	
PH		<sup>US-</sup> 6,161,130	12-20-2000	Horvitz, et al.	
		US-			
		US-			
<del></del>		US-			
		US-			-
		US-	1		
	<u> </u>	US-			
		US-	<del> </del>		
<u> </u>	<u> </u>	US-	<del> </del>	<del> </del>	

		FOREI	GN PATENT DOCU	MENTS		
Examiner Initials*	Cite No.1	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns Lines, Where Relevant Passages	
	ļ	Country Code <sup>3</sup> "Number <sup>4</sup> " Kind Code <sup>3</sup> (if known)	MM-DD-YYYY		Or Relevant Figures Appear	T°
						-
						L

Examiner			Date	· · ·
Signature	/Phuong Huynh/	•	Considered	07/19/2006

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered, include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at <a href="https://www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. Senter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. Applicant is to place a check mark here if English tanguage

Transation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

PTO/SB/08B (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Substitut	te for form 1449/PT(			Complete if Known					
Odosiiko	10 10 10 11 14 31 11			Application Number	10/766,348				
INF	ORMATIO	N DIS	CLOSURE	Filing Date	January 28, 2004				
STA	TORMATION DISCLOSURE ATEMENT BY APPLICANT  (Use as many sheets as necessary)	PPLICANT	First Named Inventor	Joshua Goodman					
	(1100.00	. <b></b>		Art Unit	Unknown				
	(USB as many s	sneets as ne	cussary)	Examiner Name	Unknown				
Sheet	2	of	2	Attorney Docket Number	MS302098.1/MSFTP537US				

Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
PH		T. JAAKKOLA, M. MEILA, and T. JEBARA. Maximum entropy discrimination. Advances in Neural Information Processing Systems 12. Cambridge, MA: MIT Press, 2000, pp. 470-477.	
PH		T. PEDERSEN, R. BRUCE, and J. WIEBE. Sequential model selection for word sense disambiguation. Proceedings of the 1997 Conference on Applied Natural Language Processing. Washington, D.C., 1997, pp.388-395.	
PH		R. LAU. Adaptive statistical language modelling. M.S. thesis, Department of Electrical Engineering and Computer Science, Massachusetts Institute of Technology, Cambridge, MA, 1994. 65 pages.	
PH		J. GOODMAN, Exponential Priors for Maximum Entropy Models, Technical Report, Microsoft Research, June 2003, 14 pages.	
РН		J. GOODMAN, Exponential Priors for Maximum Entropy Models, North American ACL, 2004, 14 pages.	

Examiner		Date	07/10/0006
	/Phuong Huynh/		07/19/2006
Signature		Considered	

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not

<sup>\*\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation in not in conformance and not considered, include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

LUS 2 6 2005

Sheet

PTO/SB/08b (08-03) Approved for use through 06/30/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE n Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. Under the Paperwork Regul

Substitute for form 1449B/PTO SUPPLEMENTAL **INFORMATION DISCLOSURE** STATEMENT BY APPLICANT (Use as many sheets as necessary)

2

	Complete if Known
Application Number	10/766,348
Filing Date	January 28, 2004
First Named Inventor	Joshua Goodman
Art Unit	2857
Examiner Name -	Paul L. Kim PHUONG HUYNH
Attorney Docket Number	M\$302098 1/M\$FTP\$37U\$

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T
РН		M. BANKO and E. BRILL. Mitigating the Paucity of Data Problem: Exploring the Effect of Training Corpus Size on Classifier Performance for NLP. In Proc. of the Conference on Human Language Technology, 2001. 5 pages.	
•••••••••••••••••••••••••••••••••••••••	***************************************	A.L. BERGER, et al. A Maximum Entropy Approach to Natural Language Processing. Computational Linguistics, 22(1): 39-71, 1996.	
*********		S.F. CHEN and R. ROSENFELD. A Survey of Smoothing Techniques for ME Models. IEEE Transactions on Speech and Audio Processing, Vol. 8 No. 1, Jan. 2000. 14 pages.	
		S. DELLA PIETRA, et al. Inducing Features of Random Fields. IEEE Transactions on Pattern Analysis and Machine Intelligence, 19(4): 380-393, 1997.	
		I.J. GOOD. The Population Frequencies of Species and the Estimation of Population Parameters. Biometrika. Vol. 40 No. 3/4, pp. 237-264, 1953.	
	***************************************	J. GOODMAN. Classes for Fast Maximum Entropy Training. In ICASSP 2001. 4 pages.	
		C.M. KADIE, et al. CFW: A Collaborative Filtering System using Posteriors over Weights of Evidence. In Proc. of UAI, pp. 242-250, 2002.	
		R. KNESER and H. NEY. Improved Backing-off for M-gram Language Modeling. In ICASSP, Vol. 1, pp. 181-184, 1995.	
		W. NEWMAN. An Extension to the Maximum Entropy Method. IEEE Transactions on Information Theory, Vol. IT-23, No. 1, January 1997. 5 pages.	
$\bigvee$	***************************************	J. DARROCH and D. RATCLIFF. Generalized Iterative Scaling for Log-linear Models. The Annals of Mathematical Statistics, 43: 1470-1480, 1972.	

			/ /
Examiner Signature	/Phuong Huynh/	Date	07/19/2006
Signature	/Phuong Huynh/	Considered	

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not

<sup>1</sup> Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

PTO/SB/08B (08-03)

Approved for use through 07/31/2006, OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Substitu	te for form 1449/PTO			Complete if Known			
	PLEMENTA	\L		Application Number	10/766,348		
INF	ORMATION	I DIS	CLOSURE	Filing Date	January 28, 2004		
STA	TEMENT E	BY A	PPLICANT	First Named Inventor	Joshua Goodman		
	(Use as many sh	note ne m	occessed.	Art Unit	2857		
	lose as many su	as II	ocessary,	Examiner Name	Paul L. Kim		
Sheet	2	of	2	Attorney Docket Number	MS302098.1/MSFTP537US		

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
PH		S.F. CHEN and J. GOODMAN. An Empirical Study of Smoothing Techniques for Language Modeling. Computer Speech and Language, 13: 359-394, October 1999.	
		A. RATNAPARKHI. Maximum Entropy Models for Natural Language Ambiguity Resolution. PhD Thesis, University of Pennsylvania, 1998. 163 pages.	
		J. REYNAR and A. RATNAPARKHI. A Maximum Entropy Approach to Identifying Sentence Boundaries. In ANLP, 1997. 4 pages.	
		R. ROSENFELD. Adaptive Statistical Language Modeling: A Maximum Entropy Approach. PhD Thesis, Camegie Mellon University, April 1994. 114 pages.	
		S. KHUDANPUR. A Method of Maximum Entropy Estimation with Relaxed Constraints. In 1995 Johns Hopkins University Language Modeling Workshop, 1995. 18 pages.	
		P.M. WILLIAMS. Bayesian Regularization and Pruning using a Laplace Prior. Neural Computation, Vol. 7, pp. 117-143, 1995.	
	-		

Examiner	•	Date	07/10/0006
Signature	/Phuong Huynh/	Considered	07/19/2006

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the Individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.